# inteligencias colectivas [karachi]



#### Inteligencias Colectivas

Every region of the world has its own repertoire of construction techniques. The coexistence of different degrees of industrialization and development allows for the mixing of semi-industrial products with old and enduring techniques; however, they are only considered valid in informal environments. While many of these construction solutions lack proper design planning, they generate a wide range of procedures through popular and generational wisdom. Few standardized products exhibit such great improvisation.

Inteligencias Colectivas draws its inspiration in part from this very ethos. Rooted in real-life examples of intelligent construction, this online platform and free database brings together knowledge considered to be on the fringe of traditional construction practice. This methodology is used in order to promote a type of technical know-how that is at once inclusive and public. A horizontal learning system — through tinkering with material prototypes — helps to weave together a tight network of people and collectives.



#### Inteligencias Colectivas [Karachi]

After 20 days in Karachi in which we discovered nearly 60 amazing objects (a term we use for non-standardized intelligent constructions), met more than 200 people, designed and built an urban structure using local techniques in collaboration with Marvi Mazhar and her team, engaging a human network of more than 30 people, we were still far away from knowing Karachi in all its complexity. However, for us Karachi is a city full of jewels.

Karachi is naan bakers, pomegranate juice stands, motorbike covers, kites, steel handmade tools and all kinds of cook and chill in public space.

Moving around Karachi with open eyes and as close to what was happening around us (other than walking, our preferred means of transportation was the rickshaw), we perceived from the very first second the city's strong manufacturing character and the Pakistani way of doing things "better done than perfect" with unexpected intelligent design solutions that solve specific problems and are determined by the materials and technologies available at the time. Recycling is a leitmotiv in Karachi.

What happens when these intelligent design solutions for everyday problems are shared and replicated again and again all around the city? The result is a city where the amount of different kinds of trolleys, bikes, canopies, street kitchens etc. becomes infinite.

As object, types these solutions shape the perception and use of public space. Every user customizes objects for his/her own purpose, creating a diverse family of the same object. The families of objects are made by different people who specialize in a certain trade and usually live and work in a certain neighborhood typical for their field of work, thus creating markets and commercial areas where the products on sale are built in backyard workshops. Streets full of nothing but car parts lead to streets full of textile products or food, rerouting needs and demands, influencing the urban landscape and peoples' movement around the city to the point of rendering sidewalks irrelevant.

The systems of urban objects and bottom-up infrastructure (trash collectors, goods delivery, transportation) are in fact the cornerstones of urban behavior in the city. Urbanism in Karachi is handmade, built by objects and manufactures.

# (common expression heard during our rickshaw safari research around the city)

# "Why should we import it if we can make it"







Inteligencias Colectivas (IC) is about developing an online researching tool to categorize and taxonomize intelligent urban solutions concerning informal knowledge, citizen agreements, citizen-experts and non-driven urban processes. We are uploading and sharing them under Creative Commons licenses.

# **URBAN EVIDENCE CATEGORIES**

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**AND MATERIALS TECHNOLOGIES** 

# TECHNOLOGIES AND MATERIALS

is not something material but the way it's used, infrastructures, hybrid construction techniques, where what's important **Emerging constructive** urban life is developed details, specific self-made objects, tools or and other interesting adapted innovations understanding also innovation in the way shared or interceded. popular inventions

of how a city, a country

works. In a globalized and even a continent



## COMMUNITIES WORKING COMMUNITIES

**OPPORTUNITY** URBAN

## URBAN OPPORTUNITY

a much better purpose. It's very important to map them and measure their potential. activities or fully working spaces with specific under new urban rules for underused and could be could be reprogrammed political situation that useful to hold certain Places to reclaim or communities are often on the verge of the law but there are always a perfect world these communities hold a lot of expertise in hybriding both western In many societies around the globe they flourish working communities socioeconomic description

that create their own jobs and guilds. This

pacts between citizens. These are able to manage internal, sometimes tacit,

and reprogramme public spaces under rules that

agreed. Another way of

are not written but

planners can learn a lot doing 'urban planning'

from which actual

for a more livable and agile city.

and traditional knowledge.



MANAGEMENT

# STRATEGIES

# Living repositories of all



**NETWORK** 

## HUMAN NETWORK

this wisdom. Necessary consultants to understand techniques or culture. An interconnected grid of urban specialist that must be enrolled in every project.

city-living and city-making by the study of their

a way of understanding

"Tactical urbanism" as

Learning from local

MANAGEMENT STRATEGIES

# **SPECIAL SEALS**

These are applicable to categorized Evidence in order to understand some specific features concerning their materials, legal agreements, replicability, etc.









from reused material or assembling other objects To indicate that an 'Evidence' its made into a new one.

Evidence on the verge of legality or alegal. Normally responding to lack of available standard rules or solutions.

same solution as a part of a 'family' in the same city or in another country or When you can find the even continent.

When you catalogue a unique 'Evience'.





# [Manual Baling Paper Press]







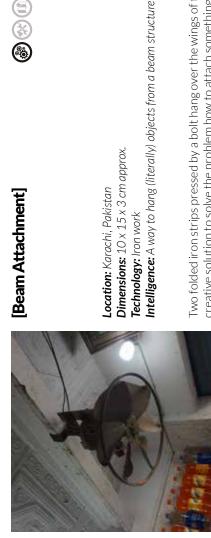




# **Location:** Back street, Abdullah Haroon Rd. **Dimensions:** $120 \times 60 \times 120$ cm approx. **Technology:** Wood, Nails and iron joins

Intelligence: Trash manufacture in city center

the cardboard inside, two people move a turning lever that moves the top piece through a gear, pressing the material. The best part of the invention is not the technology involved but its press 50m away from a main street in Karachi. The operation couldn't be simpler: after putting All over the city of Karachi (especially early in the morning) you can find people collecting plastic, cans or paper. This is not new. But we were almost shocked to find a paper and cardboard presence in the city center.



# [Beam Attachment]







creative solution to solve the problem how to attach something to a massive concrete element. Two folded iron strips pressed by a bolt hang over the wings of the concrete beam. It is a



# [Shopping Extension]

**Location:** Lee Market, Paper Area, Karachi

**Dimensions:**  $160 \times 60 \times 75 \text{ cm approx.}$ 

**Technology:** Steel work

Intelligence: Expand commercial area without effort. Taking advantage of the presence of a

flight of stairs to transform it into usable space





# [Ready-Made Anchor]



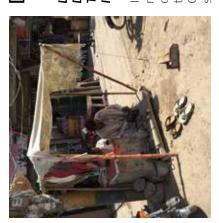




**Technology:** Steel Work

Intelligence: An object made out of simple materials

bars and plates. It is made out of one single material and three or four different pieces that can Once you see it it is easy to imagine but we have never before seen an anchor made of steel be manufactured using a forge and a welder. Simple and clever.



# [Awning & Canopies]









Location: Pakistan

**Dimensions:** Variable

Intelligence: Simple and refined details of tensile structure Technology: tensioned fabrics, rope, bamboo

IIt is common in Karachi to install small or medium sized awnings to shade shop fronts, restau· rant terraces, political or religious meetings and mobile commerce units like trolleys. In some technology everybody adapts it and finds creative solutions for joins, anchorages, drainage... Over time successful solutions are copied. The result is an extremely refined and simple condense areas like bazaars it becomes a main part of the urban landscape. Since this is a cheap struction solution.



# [Bamboo Ladders & Scaffolds]







Location: Karachi, Pakistan

**Dimensions:** Variable

Intelligence: Local supplied material. Simple construction technology Technology: Bamboo, hemp rope, wood battens

ings 10 to 14 feet (3 to 4.5 m) long bamboo pieces and 2-3 feet of hemp rope are used. Bamboo is usually dried and its surface treated (against insects) before using it as construction material. adders. However it is still interesting to learn about how easily a very light ladder up to 6 or 8 As a local product, bamboo is widely used as construction material in Pakistan. Unfortunately it is perceived as a "poor" material and we only could find examples of its use in scaffolds and meters can be built. The bamboo is carved and wood battens as rungs are inserted. For



## [Charpai]

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Location: Indian subcontinent

**Dimensions:** Usually  $3 \times 6$  feet approx.

**Fechnology:** Netting

Intelligence: Extension of commercial area without effort

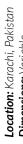
The charpai, which is used for sleeping and doubles up as a daybed, is said to be 5,000 years old. However, the handmade charpai, with its simple structure, is indigenous to the Indian Subcontinent. Traditionally they were built with wood and cotton but these days you can find steel frames and acrylic colorful fabric used for netting

hundreds of decoration sites that announce and sell it at crazy high prices. However on youtube Surprisingly there is not so much information in the internet about this amazing object besides you can find videos about how it is made.



# [Foundations]





**Dimensions:** Variable

Fechnology:

Intelligence: Low-cost and easy to make foundations

Something interesting about this kind of construction solution is that it has no scale; that means full of all kinds of containers that eventually can be filled with concrete to serve as foundation. A kind of detail that is commonly found in contemporary vernacular architecture. Cities are that you can find it from XS to XXXL size depending on what it used to contain. Most used materials are paint cans and tires.



## [Trolleys]









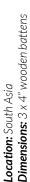
## **Dimensions:** $4 \times 6 \times 3$ m approx. Location: Karachi, Pakistan

Intelligence: mobile shopping stand **Technology:** wood and stell work

Around the city you find many different types of trolleys selling goods, food, juices... but almost twisted. Two pairs of ribs receive the wheels. Using four ribs instead of two allows each wheel placed. Starting with this simple structure each owner can add parts to adapt the trolley to his all of them have the same structure. The frame is made using steel flat bars that are bent and to move independently. Over this frame a wood board made out of cheap wood battens is own needs.



# [Mobility Extension]



Intelligence: Pickup basic tuning that allows further extensions **Technology:** Wood work

rear car body and gate. The wood makes it easy to install nails and other small metal pieces that A simple addition to every single pickup made out of a 5x10cm wood batten to the edge of the can hold ropes or fabrics over the car load. It serves also as seat and foundation on which rear bumpers and lateral fences are installed. It usually shows plenty of decoration that makes the vehicle unique



# [Fire in public space]

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Location: Pakistan

**Dimensions:** Variable

Technology: Mostly steel work

Intelligence: Regulation of fire in public spaces for private uses

out of the shops when not in use. Some of them are also equipped with wheels to become some umbrellas, light bulbs... Barbecues are light and portable structures that are moved daily in and and forges are usually built in welded steel structures that also hold fans and cooking supplies. Barbecues, bread ovens, metal forges, heaters... fire is present in Karachi streets. Barbecues kind of trolleys



# [Truck Art Guilds]











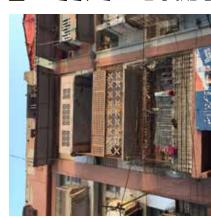


**Location:** Karachi, Pakistan

Dimensions: **Fechnology**:

Intelligence: Cluster of workshops and economy of scale

In Pakistan trucks are profusely decorated. It gives the owner a kind of status. The most popular part of this truck art is painting but there is a whole guild around it. Hornets, bumpers, garlands, in terms of communication and transport of goods. Guilds also provide a place in the city for complete interior refurbishment, reflectors, and even complete new structural parts of the trucks like cabins and tanks are made in the same area. This kind of proximity is also useful activities and people know where to go when they need any kind of services or goods.



# [Beauty City]













## From our foreigner perspective Karachi is a proud and elegant city. We detected a very strong cultural feeling of beauty and uniqueness. Everybody tries to transform their properties into in their pursuit. Cars, motorcycles, tracks, facades, windows and even their beards and their something unique. Normally people have very limited resources but that doesn't stop them mustaches are pushed to show their uniqueness and beauty, Intelligence: Beauty as a sing of proud and identity Technology: Painting, wood and steel work **Location:** Karachi, Pakistan Dimensions:

[Ibrahim Hidery]











Location: Ibrahim Hidery, Karachi, Pakistan

Intelligence: Cluster of workshops and commerce related with the same target market

fiberglass handcrafted boats. They only need from the customer the total length and width that the boat should have. According to that they build the kell and the central rib. Then they build Ibrahim Hidery homes the fisherman guild whithin all kind of goods and services related with the external shape with slim and flexible wood boards. The natural wood curvature gives the boat construction and supplies. They make and sell every single part of a boat: from anchors with welded steel bars, and aluminium components using sand casting molds to wood or shape of the boat.

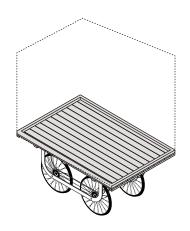
#### darwin meets karachi [upgrade]

Around the city you find many different types of trolleys selling goods, food, juices... but almost all of them have the same structure. The frame is made using steel flat bars that are bent and twisted. Two pairs of ribs receive the wheels. Using four ribs instead of two allows each wheel to move independently. Over this frame a wood board made out of cheap wood battens is placed. Starting with this simple structure each owner can add parts to adapt the trolley to his own needs.

The upgrades allow us to take a deeper look at some of the objects found in the research. The objects are measured and explained from their manufacturing process. The objective pursued is twofold: on the one hand to allow the informal knowledge that treasures the object to be codified as a technique. On the other hand this form of cataloging allows the object to be replicable in contexts different from the original.

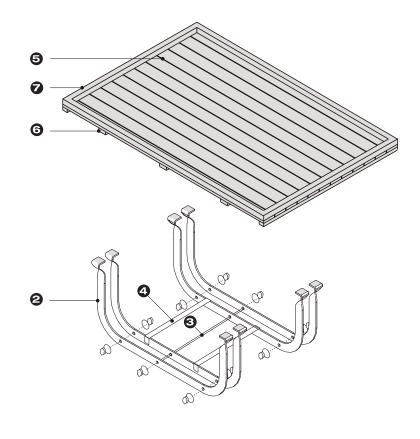
#### #Karachi Trolley

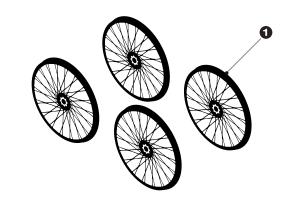




#### Axonometría General

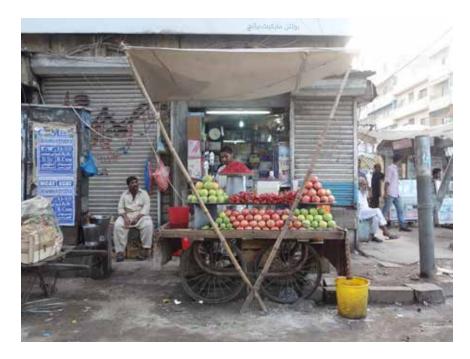
- 1 22" bike wheel
- **2** 6 feet long Iron plate ( $1/2 \times 2$ ") bent in both extremes to recieve wood frame
- 3 Threaded steel rod
- $41/2 \times 2$ " Iron plate working as inter-axle reinforcement
- **6** 1 x 3" pine wood battens
- **6** 1 x 2" wooden crosspiece
- **②** 1 x 1" wooden edge frame















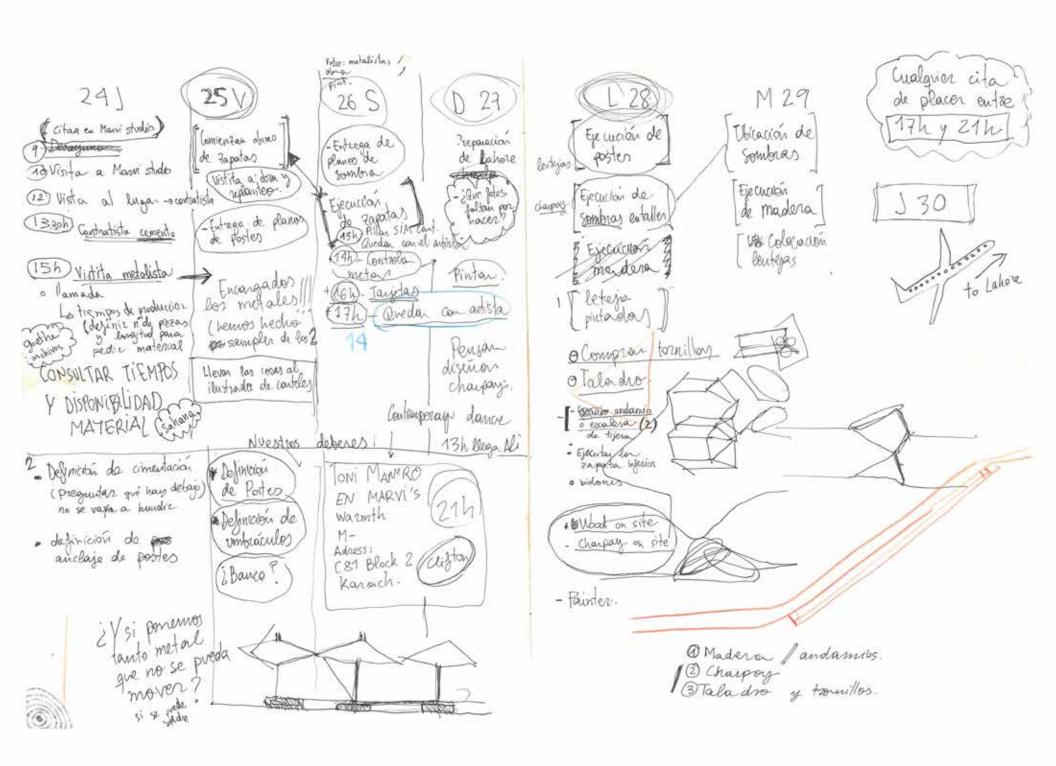


### jugaad [prototyping]

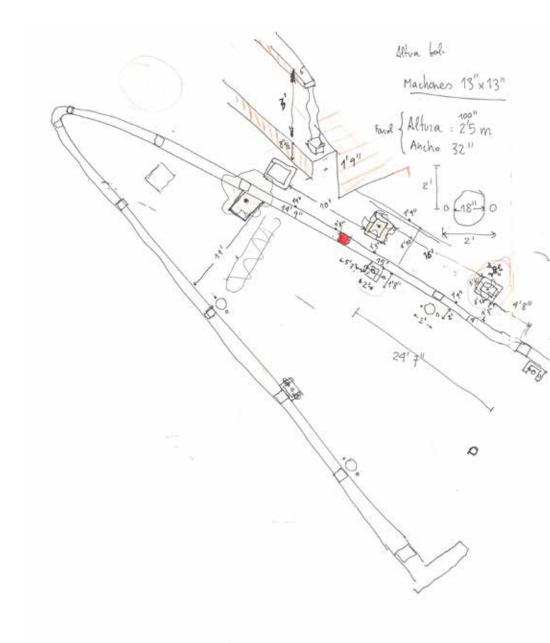


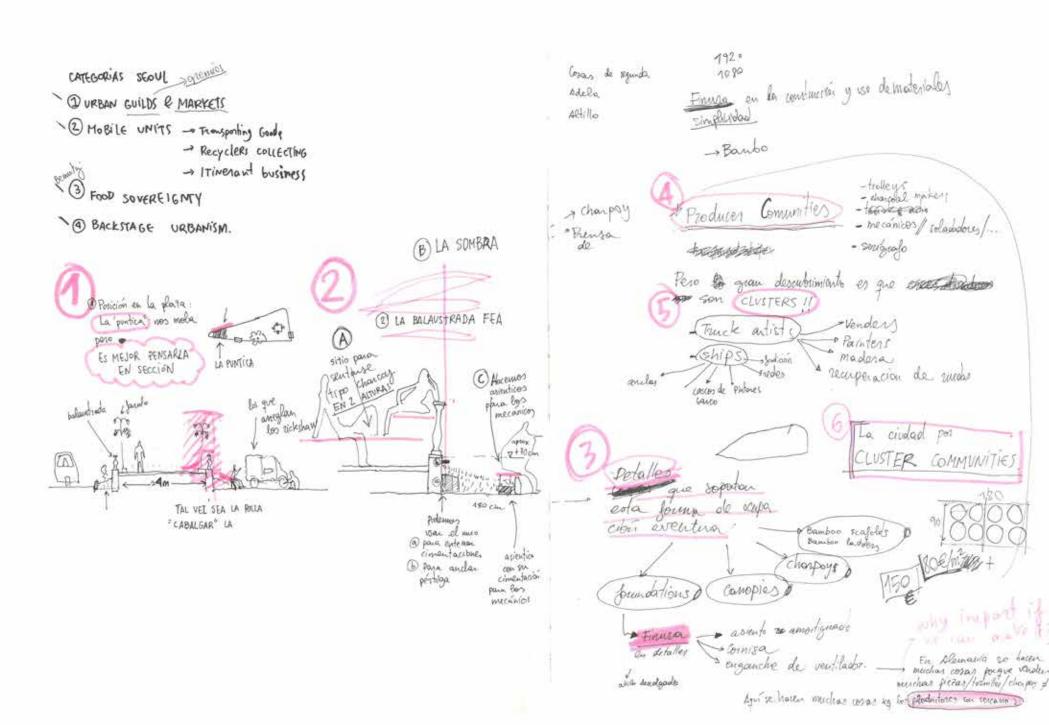
Planning and building critical constructions ("prototypes") from an assortment of evolved "jewels" found in Karachi, in collaboration with know-how local agents, becomes an equal and equitable design methodology for cultural exchange.

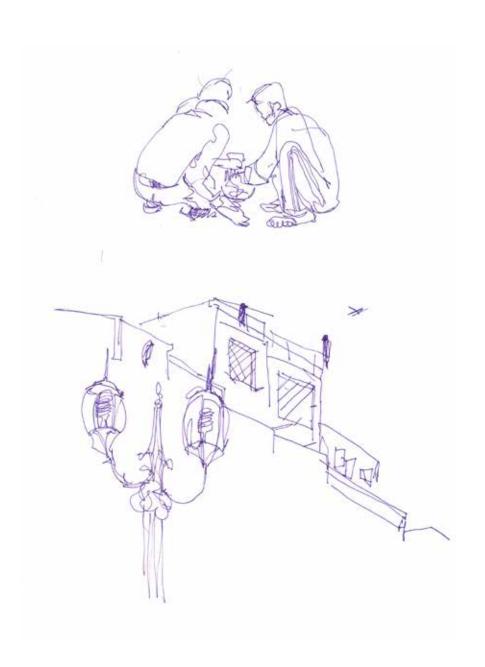
These prototypes are centered on architectural and urban planning techniques that combine conventional know-how with present-day needs. Many materials – recycled, semi-industrialized, crafted and manufactured – are integrated into such customized constructions. These solutions need to be incorporated into the building process as a way to make longstanding social traditions and our ever-changing built environment commensurable.

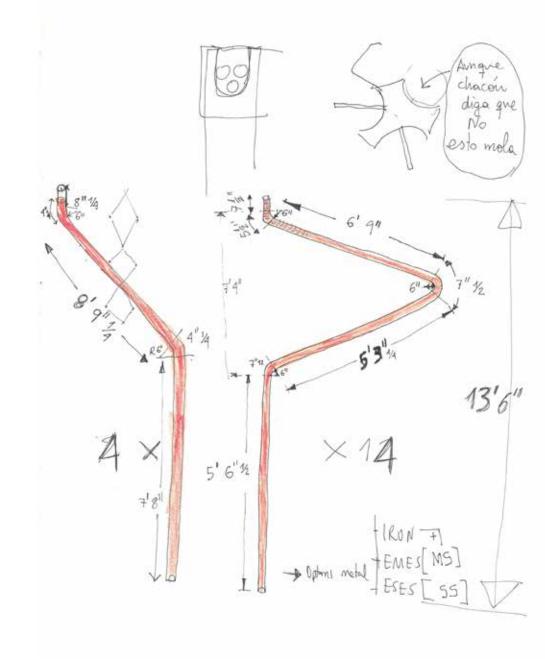




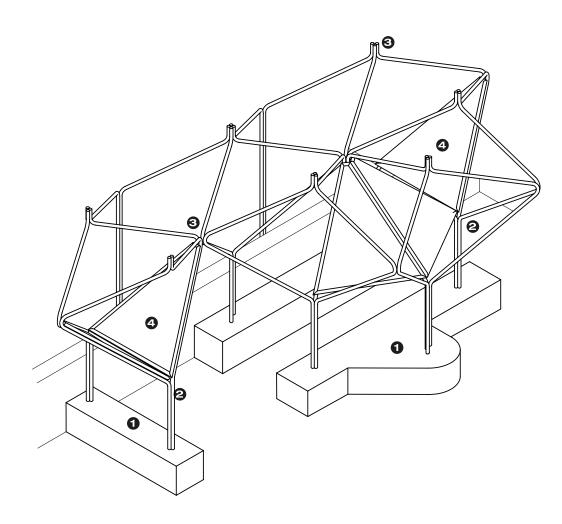












#### General Perspective

- Foundations: Handcrafted Concrete Benches
- 2 Structures of Bent Metal Pipe
- 3 Reused Tires Joints
- 4 Charpai Canopy

## inteligencias colectivas [prototyping] 151.7 312.4 296.7 694.2 911.3 153.3 0 7.971 +9.641 8<u>,6</u> 7.97 + +8.751 9"117 472.6 Plans and Dimensions 174.6 180.6 Elevation SouthElevation East 97.7 89.5 • Floorplan

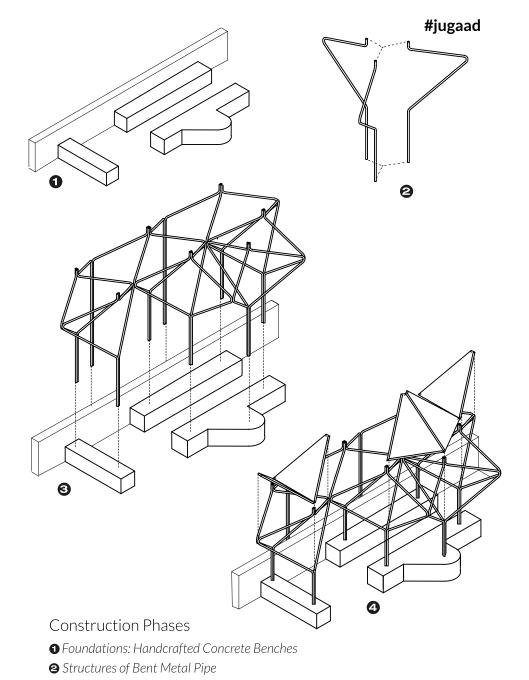
6,52

0

172.0

91.3

148.5



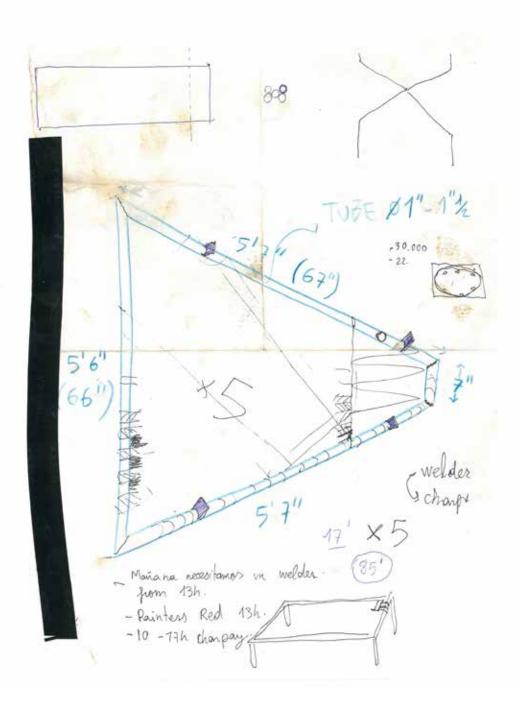
4 Charpai Canopy













#### pakistan chowk

In Inteligencias Colectivas, our final aim is to understand "tactical urbanisms" around the world as intelligent emergent city-living-making and to uncover human creativity as evidences of local culture, concerns and political situations. If we can document, share and implement such knowledge and hybridize it with scientific city-development, we will be able to ensure decent, healthy and safe living conditions in more liveable and grassroots planned urban environments.

We plan 21st century cities with citizen-curators, and this endeavour wouldn't be possible without the cooperation and support of a vast network of agents, administrations, cultural and social entities.



## From Then to Now... an ongoing initiative



Architecture starts with desire on the part of its makers, whether for security, or grandeur, or shelter, or rootedness. Built, it influences the emotions of those who experience and use it, whose desires continue to shape and change it. Desire and emotion are overlapping concepts, but if 'desire' is active, directed towards real and imagined ends, and if 'emotion' implies greater passivity, describing the ways in which we are moved, architecture is engaged with both. Buildings are intermediaries in the reciprocation between the hopes and intentions of people, in the present and the past. They are the mineral interval between the thoughts and actions that make them and the thoughts and actions that inhabit them. Heritage is knowledge. Architecture is Life.

In the fast growing cities of developing countries most parks have been reduced or even been replaced by buildings. This reflects callous disregard for health and recreation of the citizens. Moreover the parks have been stratified according to socio-economic status of the urban dwellers with very little consideration to the recreational needs of the low-income urban lot.

Pakistan Chowk is a landmark heritage public space of Karachi. It lies in the District South, Karachi, where Strachan Road meets Aram Bagh, covering an area of 6633 sq.ft. approximately. The Chowk is surrounded mostly by pre-partition buildings, few new developments, famous educational buildings and restaurants. The Chowk and its surrounding dust covered buildings tell the story of the journey of the city of Karachi into decay and dearth of aesthetics.

Historically, the Rambagh Quarters' (now known as Arambagh Quarters) importance arises from the water tanks (talao) and innumerable wells that once occupied a large area and were the initial water source to the Artillery and others.

Pakistan Chowk was formerly called the educational heart of Karachi. It was from here that the Sindh College Association and D.J Science College began to operate. It also promoted tourist activities and housed the busiest taxi and Victoria Station in the city, known as the Purana Tonga Stand.

The basic vision was to rehabilitate the Chowk back to its glory, to revive the concept of Public Square free of any commercial hoardings, redundant wires, and through the tool of design, develop the space. The aim of the rehabilitation was not beautification, but rather making it a sustainable and adaptable space for the neighborhood and the local stakeholders in three phases.

- Phase 1: analytical study and oral history of the space and its inhabitants and development of associations through dialogues with stakeholders, also known as Mohalla Baazi
- Phase 2: designing and implementation of interventions at the Chowk
- Phase 3: dealing with the issues at urban level with the help of local stakeholders and establishing a Cultural Art Center in Old Downtown

#### **Design Intervention and Process**

The Chowk was previously surrounded by a solid wall. There was no vertical access to the platform and the Chowk had turned into the largest public bathroom and dump in the neighborhood, populated by homeless and drug addicts.

The interventions carried out at the Chowk include the installation of 32 benches with names of Karachiites who worked towards civic engagement, plantation of 18 lignum trees around the Chowk, massive cleaning of the area, installation of lamp posts, dustbins, a history board and an installation by German-Spanish design team zoohaus. From the largest garbage collection platform to now an Urban Cultural Hub, we designed the space keeping the relevance and importance of its surrounding context.

The immediate context of Pakistan Chowk and architectural influences of the area have been well documented through Condition Survey Report (CSR), Cultural Mapping and Oral History documentation, and an anthropological study of the local immigrant community is in its process.

In the frame of "Urbanities – art and public space in Pakistan", the German-Spanish architecture collective zoohaus/Inteligencias Colectivas carried out an investigative and constructive research of urban informal design practices and collective technologies.

The outcomes were realized in collaboration with Marvi Mazhar & Associates for the use of the community at Pakistan Chowk, where an outdoor space with red frames was designed with truck artists and welders. Through intelligent design intervention and scale, the space became a popular node for the locals.

Today, the space is inhabited by artists who come on Sundays to paint, sketch and teach – an informal Art Center has been established by senior artists, and we have hosted several cultural events like theatre, music, storytelling sessions, readings and art performances.

The intention to go to a place creates historical time: the place is a goal in the future. The future cannot, however be left open and undefined. It is an ongoing dialogue. What is a place? What gives a place its identity, its aura? Preparing an up to date assessment of the constitution of Public Space may seem an impossible undertaking since public space takes diverse shapes and faces increasingly multifaceted and complex demands. Many towns and cities, however, now recognize the importance of public spaces, which, alongside the major places of interest, form the bond that holds together a city's landscape.



**Marvi Mazhar**, Heritage Consultant, principal architect Marvi Mazhar & Associates, Founder & Creative Head Pakistan Chowk Community Centre



















#### guilds&markets [humannetwork]

We understand "human network" as an active knowledge network of persons and collectives that becomes essential to get into specific and inaccessible qualitative space design. In this case the act of building a 3x6x4 meter structure becomes an epic action that involves more than 30 people.

For this project, Karachi, the mega-creative city of makers, brought the guilds of Charpai, Truck Art, Masonry and Motorcycle Decoration together with Marvi Mazhar's Architecture Office (Ali Raza), the curator Sara-Duana Meyer and the team of Inteligencias Colectivas to design and build "Jugaad", a playful urban installation on Pakistan Chowk in the heart of the city. While this research and project is mainly geared towards amateur builders, it aspires to be something greater: to encourage and cultivate citizen science.



#### Acknowledgments

In the process of IC Karachi particularly noteworthy is the commitment of Sara-Duana Meyer and Stefan Winkler as initiators and curators of "Urbanities - art and public space in Pakistan". Equally remarkable is the participation of initiatives like "Pakistan Chowk", represented by Marvi Mazhar or the "Vasl Artists' Collective" created and supported by Adeela Suleman and Naila Mahmood. We also want to express an immense gratitude for the ones who showed us the "real" Karachi and their streets: Ali Raza, Zoya Ahmed, Huma Tassawar, Shahana Rajani, Madeeha Syed, Basil Andrews, etc.

This network pushed the limits of Inteligencias Colectivas and enabled the development of new environments in a more sustainable, creative and common sense way.

Inteligencias Colectivas [karachi] took place as an an investigative and constructive research by zoohaus in the framework of **Urbanities - art and public space in Pakistan.** 

**Urbanities - art and public space in Pakistan** is a critical exploration of the urban, its complexities and possibilities under the premise of individual artistic work and research approaches. Throughout 2016, the partner project between the Goethe-Institut Pakistan and the Lahore Biennale Foundation, in collaboration with Vasl Artists' Collective, Annemarie-Schimmel-Haus, Marvi Mazhar & Associates, and other partners, incited discursive and artistic contributions related to Pakistan's controversial and contested urban space. By recollecting Henri Lefebvre's "right to the city" for critical discussion, the project aimed to enable a broad audience to engage with contemporary art and urban space, and to link the emerging generation of artists, curators and urban researchers in Pakistan with the scenes in Germany within the broader framework of the curatorial processes leading up to the Lahore Biennale.

The project **Urbanities - art and public space in Pakistan** was conceived by Stefan Winkler, Goethe-Institut Pakistan, and directed and co-curated by Sara-Duana Meyer.

#### Photo credits

Amna Abdullah and zoohaus

Marvi Mazhar & Associates Page 50-51, 62 bottom

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